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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,017	03/10/2004	Keijiro Take	249320US-6 DIV	2657

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
PHAN, TRI H	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/796,017	Applicant(s) TAKE, KEIJIRO	
	Examiner Tri H. Phan	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-6* is/are pending in the application.

4a) Of the above claim(s) *1 and 2* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/156,703 (US 6,477,158).

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment/Arguments

1. This Office Action is in response to the Preliminary Amendment filed on March 25th, 2005. Claims 1-2 are now canceled. Claims 3-6 are now pending in the application.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/156,703 filed on 09/18/1998.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nakamura et al.** (U.S.5,740,168) in view of **Adachi** (U.S.6,084,884).

- In regard to claims 3 and 5, **Nakamura** discloses in Figs. 3A-B, 2A-B, 4, 20A-B, 25 and in the respective portions of the specification about the method and apparatus for switching

radio link at the base station in the mobile communication employing code division multiple access 'CDMA' for radio access with the mobile stations (For example see Abstract; col. 5, lines 10-30); wherein each base station's transceiver unit ("*base station*"; For example see Fig. 2A) under the control of the base station control unit includes the switching timing set up unit, the switching timing information changing unit ("*timing information sending unit*"), the spread code switching unit and the control unit ("*switching unit*") as disclosed in Fig. 2B; for selecting and transmitting the timing information ("*timing information*") and new spreading code ("*code information*"; wherein, it is obvious that the new spreading code is the "*second code*" and the being used spreading code is the "*first code*") to the mobile station for switching the spreading codes in synch ("*switching in synchronization*") between the base station and the mobile station, when detecting the link quality degradation, (For example see Figs. 4, 20A-B, 25; col. 6, line 18 through col. 7, line 38); and wherein the transceiver unit of the mobile station ("*mobile station*") includes the switching timing set up unit, the switching timing information change detection unit, the spread code switching unit and the control unit as disclosed in Fig. 3B, for receiving the new spreading code designation signal ("*code information*") containing the selected unused spreading code (For example see Figs. 4, 20A-B, 25; col. 6, lines 35-39; where, it is obvious that the newly selected unused spreading code is the "*second code*" and the 'being used' spreading code is the "*first code*") sent by the base station (For example see col. 6, lines 18-34); for receiving the switching timing information sent by the base station ("*timing information*"; For example see Figs. 4, 20A-B, 25; col. 6, line 60 through col. 7, line 3); and for switching to the newly selected spreading code ("*second code*") at appropriate timing (For example see Figs. 4, 20A-B, 25; col. 7, lines 4-15) for maintaining in synch between the base station and the mobile station

("*switching performed in synchronization*"; For example see col. 7, lines 28-38). **Nakamura** further discloses about the use of unique words in each frame for setting up the switching timing in prescribed frames, e.g. M and N frames (For example see Figs. 4, 6-7; col. 8, line 64 through col. 9, line 12), or using frame number (For example see Fig. 16; col. 14, lines 7-17), or using flag in each frame for period of time in boundary of frames (For example see Figs. 8-15; col. 11, lines 50-59); wherein, it is obvious the number or sequence of frames is in integer ("*timing information including an integer representing the frame*"). **Nakamura** does disclose about the method and system for using in the CDMA scheme, but fails to explicitly disclose about the "*multi-rate transmission*" of the CDMA. However, such implementation is known in the art.

For example, **Adachi** discloses in Figs. 1, 3, 7, 9-11 and in the respective portions of the specification about the system and method for achieving generation and selection of spreading sequences implementing in the multi-rate CDMA communications system ("*multi-rate transmission*"; For example see Figs. 1, 3, 7; col. 3, line 39 through col. 4, line 27; col. 5, lines 26-67) while assuring code orthogonal without interference between the users, which results in the degradation in the transmission quality.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by **Adachi**, by implement the method for using and selecting spreading sequences in the multi-rate CDMA communications system into the **Nakamura**'s CDMA scheme, with the motivation being to improve the ability to carry out the transmission with different rates for different types, without interference between users as disclosed in **Adachi**: col. 1, lines 45-48.

- Regarding claims 4 and 6, **Nakamura** discloses in Figs. 3A-B, 2A-B, 4, 20A-B, 25 and in the respective portions of the specification about the method and apparatus for switching radio link at the base station in the mobile communication employing code division multiple access 'CDMA' for radio access with the mobile stations (For example see Abstract; col. 5, lines 10-30); wherein each base station's transceiver unit ("*base station*"; For example see Fig. 2A) under the control of the base station control unit includes the switching timing set up unit, the switching timing information changing unit ("*timing information sending unit*"), the spread code switching unit and the control unit ("*switching unit*") as disclosed in Fig. 2B; for selecting and transmitting the timing information ("*timing information*") and new spreading code ("*code information*"; wherein, it is obvious that the new spreading code is the "*second code*" and the being used spreading code is the "*first code*") to the mobile station for switching the spreading codes in synch ("*switching in synchronization*") between the base station and the mobile station, when detecting the link quality degradation, (For example see Figs. 4, 20A-B, 25; col. 6, line 18 through col. 7, line 38); and wherein the transceiver unit of the mobile station ("*mobile station*") includes the switching timing set up unit, the switching timing information change detection unit, the spread code switching unit and the control unit as disclosed in Fig. 3B, for receiving the new spreading code designation signal ("*code information*") containing the selected unused spreading code (For example see Figs. 4, 20A-B, 25; col. 6, lines 35-39; where, it is obvious that the selected unused spreading code is the "*second code*" and the 'being used' spreading code is the "*first code*") sent by the base station (For example see col. 6, lines 18-34); for receiving the switching timing information sent by the base station ("*timing information*"; For example see Figs. 4, 20A-B, 25; col. 6, line 60 through col. 7, line 3); and for switching to the newly selected

spreading code ("*second code*") at appropriate timing (For example see Figs. 4, 20A-B, 25; col. 7, lines 4-15) for maintaining in synch between the base station and the mobile station ("*switching performed in synchronization*"; For example see col. 7, lines 28-38). **Nakamura** further discloses about the use of unique words in each frame for setting up the switching timing ("*timing of switching*") in prescribed frames, e.g. M and N frames (For example see Figs. 4, 6-7; col. 8, line 64 through col. 9, line 12) and maintaining the frame synchronization ("*timing information is used to synchronize the switch*"; For example see col. 8, lines 19-22), or using frame number (For example see Fig. 16; col. 14, lines 7-17), or using flag in each frame for period of time in boundary of frames (For example see Figs. 8-15; col. 11, lines 50-59). **Nakamura** does disclose about the method and system for using in the CDMA scheme, but fails to explicitly disclose about the "*multi-rate transmission*" of the CDMA. However, such implementation is known in the art.

For example, **Adachi** discloses in Figs. 1, 3, 7, 9-11 and in the respective portions of the specification about the system and method for achieving generation and selection of spreading sequences implementing in the multi-rate CDMA communications system ("*multi-rate transmission*"; For example see Figs. 1, 3, 7; col. 3, line 39 through col. 4, line 27; col. 5, lines 26-67) while assuring code orthogonal without interference resulting in the degradation in the transmission quality between the users.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by **Adachi**, by implement the method for using and selecting spreading sequences in the multi-rate CDMA communications system into the **Nakamura**'s CDMA scheme, with the motivation being to improve the ability to carry

out the different rate transmissions for different types, without interference between users as disclosed in **Adachi**: col. 1, lines 45-48.

Response to Arguments

5. Applicant's arguments filed on March 25th, 2005 have been fully considered but they are not persuasive.

In response to Applicant's argument that the references fail to show a certain feature of Applicant's invention, it is noted that the feature upon which Applicant relies (i.e., method for transmitting "code information" and "timing information" to one of a plurality of terminals by message where the message is not a Layer 1 construct and which is different from using Layer 1 bit data) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.1993).

Conclusion

6. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on (571) 272-3126.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tri H. Phan
April 14, 2005

BRIAN NGUYEN
PRIMARY EXAMINER